

CLAIMS

What is claimed is:

1. A method of processing television content metadata in a communications system, the system including a set-top box (STB) and an auxiliary display device, the auxiliary display device including (i) a memory which stores a predefined image, (ii) a display, (iii) a processor, and (iv) a metadata processing application, the method comprising:

- (a) the STB extracting television content metadata from a transport stream received by the STB, the extracted metadata defining at least one of text and images;
- (b) transmitting the extracted metadata from the STB to the auxiliary display device;
- (c) processing the extracted metadata in the auxiliary display device using the metadata processing application running on the processor of the auxiliary display device; and
- (d) adjacently displaying on the display of the auxiliary display device (i) the predefined image stored in the memory of the auxiliary display device, and (ii) the at least one of text and images defined by the extracted metadata.

2. The method of claim 1 wherein the memory of the auxiliary display device stores a plurality of predefined images, the method further comprising:

- (e) the metadata processing application of the auxiliary display device changing the displayed predefined image on a periodic basis.

3. The method of claim 2 wherein the extracted metadata includes a uniform resource identifier (URI), the method further comprising:

- (f) the metadata processing application of the auxiliary display device changing the displayed predefined image each time the auxiliary display device receives a URI from the STB.

4. The method of claim 1 wherein the extracted metadata further includes a uniform resource identifier (URI) that specifies a particular area on the display of the auxiliary display

device for a broadcast television channel video image to be presented, the method further comprising:

(e) the metadata processing application of the auxiliary display device replacing the URI with another URI stored in the memory of the auxiliary display device.

5. The method of claim 1 wherein the extracted metadata specifies a format for displaying at least one of images and text on the display of the auxiliary display device, the method further comprising:

(e) the metadata processing application of the auxiliary display device changing the format specified by the extracted metadata.

6. The method of claim 1 wherein the predefined image is an advertisement.

7. The method of claim 1 wherein the extracted metadata is advanced television enhancement forum (ATVEF) data.

8. The method of claim 1 wherein the transport stream includes a plurality of vertical blanking interval (VBI) lines, and the metadata is extracted from at least one of the VBI lines.

9. The method of claim 1 wherein the transport stream is a Moving Picture Experts Group (MPEG) transport stream.

10. The method of claim 1 wherein step (a) further comprises storing the extracted metadata, and step (b) is implemented in response to playing back the stored metadata.

11. A communications system for processing television content metadata, the system comprising:

(a) a set-top box (STB) which extracts television content metadata from a transport stream received by the STB, the extracted metadata defining at least one of text and images; and

(b) an auxiliary display device in communication with the STB, and which receives the extracted metadata from the STB, the auxiliary display device including:

- (i) a memory which stores a predefined image;
- (ii) a processor;
- (iii) a metadata processing application running on the processor, and which processes the extracted metadata; and
- (iv) a display which displays the predefined image adjacent to the at least one of text and images defined by the extracted metadata.

12. The system of claim 11 wherein the memory of the auxiliary display device stores a plurality of predefined images, and the metadata processing application of the auxiliary display device changes the displayed predefined image on a periodic basis.

13. The system of claim 12 wherein the extracted metadata includes a uniform resource identifier (URI), and the metadata processing application of the auxiliary display device changes the displayed predefined image each time the auxiliary display device receives a URI from the STB.

14. The system of claim 11 wherein the metadata processing application of the auxiliary display device replaces a first uniform resource identifier (URI) included in the extracted metadata with a second URI stored in the memory of the auxiliary display device, the first URI specifying a particular area on the display of the auxiliary display device for a broadcast television channel video image to be presented.

15. The system of claim 11 wherein the metadata processing application of the auxiliary display device changes a format specified by the extracted metadata for displaying at least one of images and text on the display of the auxiliary display device.

16. The system of claim 11 wherein the predefined image is an advertisement.

17. The system of claim 11 wherein the extracted metadata is advanced television enhancement forum (ATVEF) data.

18. The system of claim 11 wherein the transport stream includes a plurality of vertical blanking interval (VBI) lines, and the metadata is extracted from at least one of the VBI lines.

19. The system of claim 11 wherein the transport stream is a Moving Picture Experts Group (MPEG) transport stream.

20. The system of claim 11 wherein the communications system is a cable television (CATV) system.

21. An auxiliary display device for processing television content metadata, the auxiliary display device receiving television content metadata extracted from a transport stream, the extracted metadata defining at least one of text and images, the auxiliary display device comprising:

- (a) a memory which stores a predefined image;
- (b) a processor;
- (c) a metadata processing application running on the processor, and which processes the extracted metadata; and
- (d) a display which displays the predefined image adjacent to the at least one of text and images defined by the extracted metadata.

22. The device of claim 21 wherein the memory stores a plurality of predefined images, and the metadata processing application changes the displayed predefined image on a periodic basis.

23. The device of claim 22 wherein the extracted metadata includes a uniform resource identifier (URI), and the metadata processing application changes the displayed predefined image each time the auxiliary display device receives a URI.

24. The device of claim 21 wherein the metadata processing application replaces a first uniform resource identifier (URI) included in the extracted metadata with a second URI stored in the memory, the first URI specifying a particular area on the display for a broadcast television channel video image to be presented.

25. The device of claim 21 wherein the metadata processing application changes the format specified by the extracted metadata for displaying at least one of images and text on the display of the auxiliary display device.

26. The device of claim 21 wherein the predefined image is an advertisement.